

From: Karl M Boyer <kboyer@fs.fed.us>
To: <stevefluke@utah.gov>, <stevefluke@utah.gov>
Date: 10/22/2004 2:52:37 PM
Subject: Fw: South Crandall MRP Revision

----- Forwarded by Karl M Boyer/R4/USDAFS on 10/22/2004 03:00 PM -----

Karl M
Boyer/R4/USDAFS
To
10/04/2004 05:11 PM maryannwright@utah.gov,
pamgrubaughlittig@utah.gov,
joehelfrich@utah.gov,
sfluke@utah.gov,
jimdsmith@utah.gov,
waynehedberg@utah.gov,
Jeff_McKenzie@blm.gov,
James_Kohler@blm.gov,
Stan_Perkes@blm.gov
cc

Subject
Fw: South Crandall MRP Revision

The attached document contains the latest FS review comments on Genwal's Responses. This pertains to Item 4 of the Agenda. Maybe this has already been e-mailed to you.

Karl

----- Forwarded by Karl M Boyer/R4/USDAFS on 10/04/2004 04:31 PM -----

Karl M
Boyer/R4/USDAFS
To
09/22/2004 03:35 PM Aaron Howe/R4/USDAFS, Dale
Harber/R4/USDAFS, Carter
Reed/R4/USDAFS, Mesia
Nyman/R4/USDAFS
cc

Subject
South Crandall MRP Revision

The attached document contains:

- 1) FS review comments (in black) of the South Crandall MRP Revision submitted by GENWAL in several versions.
- 2) GENWAL's responses (in red) to the FS comments.
- 3) FS review comments (in blue) of GENWAL's responses.

Karl

(See attached file: South Crandall Review, 9-21-04.doc)

Project: South Crandall Lease.

Review of GENWAL's September 1, 2004 responses to February 19, 2004 FS comments.

Date of this review: Sept. 21, 2004.

1. Chapter 3.

The Biology chapter must include the following maps (accompanied with a discussion) for the South Crandall tract:

- a) Deer Habitat Map (showing summer and winter range).
- b) Elk Habitat Map (showing summer and winter range).
- c) A vegetation monitoring plan must be discussed for the South Crandall tract.

GENWAL:

"Information regarding deer and elk habitat can be found in Chapter 3. GENWAL has a commitment for vegetation monitoring.

FS:

a & b) The Wildlife Map (Plate 3-1) dated March 23, 2004 lacks sufficient detail. So much information is missing that the 2004 map is in disagreement with the March 1994 revision.

c) The Vegetation Map (Plate 3-2), dated April 15, 2004, does not accurately reflect the vegetation types in the South Crandall Lease Area.

2. Chapter 3, Section 3.22.21, Page 3-8.

Provide a complete list of Threatened and Endangered Species (containing both plants and animals) on page 3-8 rather than referring the reader to Appendix 3-3.

GENWAL:

"A T&E list is included in Chapter 3".

FS:

It doesn't make sense to provide a partial T&E list at the beginning of Section 3.22.21 and then refer the reader to a more complete list in the appendix. Replace the partial list in Section 3.22.21 with the complete, and updated, list.

3. Chapter 3, page 3-8.

The letter from UDWR referenced as being in Appendix 3-17 is not there. It should be presented in the MRP Revision.

GENWAL:

"The letter from DWR (App 3-17) has been deleted from Chapter 3".

FS:

A letter from UDWR, dated September 2, 1993, is in Chapter 3 of the April 1997 Crandall Canyon Mine MRP. The letter pertains to the original lease. It does not cover the South Crandall Lease Area. The letter from the USF&WS, found in the same document and section, is dated August 26, 1993 and pertains only to Lease UTU-68082, which is well north of the South Crandall Lease.

4. Chapter 3, page 3-9.

The Peregrine Falcon should be added to the Sensitive Species list.

GENWAL:

“The Peregrin[e] Falcon has been added to the sensitive species list”.

FS:

The Peregrine Falcon has been added to the list in the June 2004 MRP Revision document.

5. Chapter 3, page 3-9, 2^d paragraph.

The trout in Crandall Canyon are hybrids, not pure Colorado Cutthroats.

GENWAL:

“The Cutthroat trout in Crandall Canyon have been identified as hybrid”.

FS:

The change to the document has been made.

6. Chapter 5.

Include the following:

- a) Structural contour maps for both coal seams.
- b) Interburden map depicting the rock thickness between the two coal seams.
- c) Geologic cross-sections (2) through the South Crandall tract; one oriented east-west and one oriented north-south. Geologic formations depicted should include the North Horn down to the Mancos shale.

GENWAL:

“The maps in Chapter 5 show structure and interburden. A geologic cross-section is also included in Chapter 5”.

FS:

- a) Structural contour maps have not been provided in the document for the South Crandall Lease Area. A structural contour map shows the elevation contours on the top horizon of a specific geologic unit. In this case we are interested in the

elevation contours for the Blind Canyon and Hiawatha coal seams.

- b) Interburden contours are not provided in the document. Only drill hole data are shown.
- c) The two requested geologic cross sections for the South Crandall Lease Area have not been provided. The cross-section referred to by GENWAL is found in a hydrologic interpretation presented in Appendix 6-7 of the June 2004 MRP document. This cross-section does not go through the South Crandall Lease and does not provide the information requested.

7. Chapter 5.

There should be a Section 5.23 presented in the Revision that explains the mining methods to be used in the South Crandall tract. It should detail the different mining methods to be used in different areas of the tract; especially with regard to Little Bear Canyon.

GENWAL:

“This comment is addressed in the pending R2P2 approval recommendation by the BLM”.

FS:

The FS is still in consultation on this matter.

8. Subsidence Control Plan, Section 5.25.10, Page 5-21.

The mine plan revision must clearly demonstrate that areas of Little Bear Canyon with overburden less than 600 feet will not be subsided. The last sentence on page 5-21 should be supported by clearly delineating on Plates 5-2 H and 5-2 BC, the 600 foot overburden contour in Little Bear Canyon for each coal seam. Available data indicate

that the interburden between the two coal seams is less than 100 feet. Therefore, the 600 foot contours depicted on the overburden maps should not be far apart. Show the 600 foot contours in heavy line thickness so they can be clearly seen.

GENWAL:

“This comment is addressed in the pending R2P2 approval recommendation by the BLM”.

FS:

The FS is still in consultation on this matter.

9. Anticipated Effects of Planned Subsidence, Section 5.25.15, Page 5-26.

Each one of the three items following paragraph 3 (items a, b and c) in this section

requires correction.

- a) Plates 5-2 H and 5-2 BC don't agree with the narrative. Both plates show longwall mining in areas with less than 600 feet of overburden. The plates should be corrected to plainly show that no longwall mining will occur in areas with less than 600 feet of overburden in Little Bear Canyon.

The wording of *Item a* also requires correction. Stipulation #9 of the Decision Notice clearly states "Mining must be conducted in a manner necessary to prevent subsidence in the Little Bear **Canyon**....", emphasis added; the DN does not refer to Little Bear **stream channel** when discussing areas outside the subsidence zone.

- b) The wording of *Item b* is incorrect. It should state that no mining, whatsoever, will occur within 1000 feet of the southeast corner of the lease until the water replacement agreement between Genwal and Castle Valley Special Services District has been implemented.
- c) Plates 5-2 H and 5-2 BC don't agree with *Item c*, i.e., both plates show longwall mining within 1000 feet of the southern boundary of the lease. No mining, whatsoever, should occur within the buffer zone until the water replacement agreement is implemented.

Additionally, no longwall mining can occur in areas with less than 600 feet of overburden in Little Bear Canyon. Observance of the 600 foot overburden restriction would remove about 1/2 of the southernmost panel in the Blind Canyon seam and about 2/3 of the southernmost panel in the Hiawatha seam. As Plate 5-2 BC is now drawn there is approximately 200 feet of overburden along the southern edge of the southernmost panel. A similar situation exists in Plate 5-2 H. This is clearly unacceptable.

Also, the clause within parentheses in *Item c*, i.e., "to protect possible water-bearing fracture system" directly contradicts the statement at the top of page 5-26b stating that the recharge fault system for Little Bear Spring is not located within the subsidence zone of the proposed South Crandall mine nor even within the South Crandall lease area. The statement at the top of page 5-26b should be deleted. The recharge mechanisms for Little Bear Spring are still not well understood. A definitive statement such as the one made on page 5-26b is not supported by the present state of knowledge regarding Little Bear Spring.

GENWAL:

"This comment is addressed in the pending R2P2 approval recommendation by the BLM".

FS:

- a) The FS is still in consultation on this matter.
- b) The Water Replacement Agreement is in the June 2004 MRP document.
- c.1) The Water Replacement Agreement is in the June 2004 MRP document.

c.2) The FS is still in consultation on this matter.

c.3) The contradiction has not been corrected.

10. Subsidence Control Plan, Chapter 5, Section 5.25.

The means of protecting the powerline that crosses part of the South Crandall Lease (Sections 5 and 8, T.16 S. R.7 E.) must be discussed and the powerline route must be depicted on the maps presented in Chapter 5. The ground beneath the powerline cannot be subsided.

GENWAL:

“Protection of the powerline is discussed in Chapter 5”.

FS:

The explanation given on page 5-26b of the June 2004 MRP is not adequate.

11. Subsidence Monitoring, Page 5-26a and Alternative Water Source Information, Page 7-29.

A copy of the Water Replacement Agreement arranged between Castle Valley Special Services District and Genwal is not provided in Appendix 7-51 as stated in the mine plan revision. The Agreement needs to be presented in the Lease Revision. It needs to demonstrate that Genwal will meet the requirements of Special Coal Lease Stipulation #17. As stated in Stipulation #17, the provisions of the Agreement must be implemented prior to mining in two areas of the tract (as identified in Stipulation #17) or an additional mining plan must be submitted to the Authorized Officer that identifies measures to be taken by the Lessee that will ensure that Little Bear Spring would not be impacted by mining.

GENWAL:

“A copy of the Water Replacement Agreement is included in Chapter 7”.

FS:

The agreement has been included in the June 2004 MRP.

12. Chapter 7, General.

The critical questions associated with the South Crandall Tract are whether mining will affect the quantity and quality of water from Little Bear Spring and whether there is an effective mechanism to ensure a continuing supply of culinary water in spite of this uncertainty.

Chapter 7 and Appendix 7-15, Probable Hydrologic Consequences Determination, do not adequately present a summary of the hydrologic investigations done to date.

It is not clear that Special Coal Lease Stipulations #9 or #17 have been fully

incorporated into the proposed Lease Revision.

In a 26 November 2003 phone conversation with Mr. Darrel Leamaster, the manager of the Castle Valley Special Services District, he expressed his understanding and expectation that the water treatment plant will be built prior to mining in the areas of concern. To that end, Mr. Leamaster stated that Genwal and Energy West are cooperating on the agreement and have concurrently hired an engineer to begin designing the treatment plant. Darrel expects construction to begin in June 2004 and to be completed in September or October.

GENWAL:

“A copy of the Water Replacement Agreement is included in Chapter 7”.

FS:

Katherine Foster’s comment.

13. Mine Plan Area Aquifers, Section 7.24.1, Pages 7-5 to 7-6.

Past hydrologic studies have not conclusively determined that Little Bear Spring is recharged primarily from water losses in Mill Fork Canyon. The pre-1998 studies concurred on only a few points, one of which was that the source area for Little Bear Spring was to the north and west. More recent studies have indicated that there is a component of flow reaching Little Bear Spring from both the north and the south. The dye tracer study performed in summer 2001 only demonstrated that there is a component of flow from Mill Fork Canyon to Little Bear Spring; a volume of flow cannot be quantified from the study. The Lease Revision should reflect these findings.

GENWAL:

“The text in Chapter 5 addresses the issue of a northerly component of flow to Little Bear Spring”.

FS:

This comment stands. GENWAL has not addressed this. The short statement on page 7-6 of the June 2004 MRP is not adequate.

14. Mine Plan Area Aquifers, Section 7.24.1, bottom paragraph on Page 7-6 to top of Page 7-7.

Encountering perched (or otherwise isolated) zones of the Star Point sandstone while mining through the coal of the Blackhawk Formation may have little potential for affecting springs in the area that rely on perched water, but it should be kept in mind that the only major spring in the tract is Little Bear Spring. This spring is fault related; it is not related to perched water conditions. If mining contacted a fault supplying water to Little Bear Spring, it could have a direct adverse impact to the water quality and quantity at the spring. A discussion addressing this possibility needs to be included in the Lease Revision.

GENWAL:

“The potential for affecting the Little Bear Spring is discussed in Chapter 5”.

FS:

This comment has not been addressed. The way that the narrative is presented in the MRP Revision is very misleading.

15. Effects of Mining Operation on Groundwater, Section 7.24.1, page 7-13, first paragraph of the sub-section.
 Mine dewatering is probably not the primary mechanism affecting groundwater systems and it is certainly not the only one. This section and the previous one have a seemingly thorough and repetitive description of the existing condition of the regional aquifer and the more localized ones supporting springs and seeps. However, it does not address any consequences associated with subsidence fracturing of the source areas of these springs and seeps. In fact, no information is provided about the probable source areas of these springs and seeps.

GENWAL:

“The effects of [the] mining operation on groundwater is discussed in Chapter 5”.

FS:

Katherine Foster’s comment.

16. Mitigation and Control Plan, Section 7.24.1, Page 7-14 and Alternative Water Source Information, Section 7.27, Page 7-29.
 When discussing mining related impacts to Little Bear Spring Pages 7-14 and 7-29 of the Lease Revision state, respectively, “Should it be necessary to develop alternate water supplies due to unexpected diminution or interruption of flows as a direct result of mining activities...” and “Mitigation for potential disruption to Little Bear Spring will be accomplished through the construction of a water treatment plant ... if mining activity in the South Crandall lease tract affects the quality or quantity of the spring”. These two statements are not compatible with the intent of Special Coal Lease Stipulation #17 which is to ensure an uninterrupted supply of culinary water prior to mining in the two identified areas irrespective of whether mining can be conclusively shown to have affected the spring. Therefore, language should be incorporated in the Lease Revision that is consistent with Stipulation #17 and the understanding of Castle Valley Special Services District.

GENWAL:

“A copy of the Water Replacement Agreement is included in Chapter 7”.

FS:

The comment has not been addressed. Even though the Water Replacement Agreement has been signed, it does not obviate the need to make the narrative in the MRP consistent with the language in the Decision Notice.

17. Regional Surface Water Hydrology, Section 7.24.2, Page 7-16, first paragraph of the sub-section.

The statement that “There are no perennial drainages in the proposed South Crandall Lease area” is consistent with the 1997 EA but inconsistent with the 2003 Decision Notice. Page 4 of the Decision Notice points out that there are areas of Little Bear Creek with riparian vegetation and that these areas are supported by segments of perennial sub-alluvial flow. Thus, Little Bear Creek must be identified as a perennially functioning stream.

GENWAL:

“The perennially functioning status of Little Bear drainage is included in Chapter 7”.

FS:

GENWAL has included a statement that the FS believes Little Bear Creek to be “perennially functioning”. In my opinion Little Bear Creek is perennial, but the 1997 EA stated that it was not perennial and the 2003 Decision Notice called it “perennially functioning”; so the result is that the FS will probably have to accept their response.

18. Mine Plan Area Surface Hydrology, Section 7.24.2, Page 7-17, 2^d paragraph of the sub-section.

Comment #17, pertaining to the perennially functioning status of Little Bear Canyon, also applies to this section.

GENWAL:

“The perennially functioning status of Little Bear drainage is included in Chapter 7”.

FS:

GENWAL has included a statement that the FS believes Little Bear Creek to be “perennially functioning”. In my opinion Little Bear Creek is perennial, but the 1997 EA stated that it was not perennial and the 2003 Decision Notice called it “perennially functioning”; so the result is that the FS will probably have to accept their response.

19. Hydrologic Balance Protection, Surface and Groundwater Protection Plan, Section 7.31.1, Pages 7-26a to 7-27a.

The measures described in detail for mining near the Joe’s Valley Fault (pertaining to pilot borings and geologic mapping based upon the data gained from the borings) should also be required for the two buffer zones around Little Bear Spring described in Special Coal Lease Stipulation #17. A sub-surface drilling and geologic mapping program (similar to the one conducted previously to prevent damage to the

hydrologic

system associated with Joes Valley Fault) was discussed in the Recommendations Section of the Hydrogeologic Interpretation prepared by the Forest Service (South Crandall Tract project file).

GENWAL:

“This comment is addressed in the pending R2P2 approval recommendation by the BLM”.

FS:

This comment should be addressed in the South Crandall MRP Revision.

20. Probable Hydrologic Consequences Determination, Pages 3, 4, and 5, Appendix 7-15. Comments #13, #14, #15, and #17 also apply to the hydrologic interpretation in this section.

GENWAL:

“Refer to comments #13, #14, #15, and #17.”

FS:

Comments #13, #14, and #15 were never answered by GENWAL. With regard to #17 the FS will probably have to accept the way they have addressed it in the MRP.

21. Appendix 7-15, Probable Hydrologic Consequences Determination, Interception, Page 2.
The 600 foot overburden observance and the perennially functioning status of Little Bear Creek needs to be addressed.

GENWAL:

“This comment is addressed in the pending R2P2 approval recommendation by the BLM”.

FS:

The FS is still in consultation on this matter.